

ABSTRACT OF THE DISCLOSURE

A device for effecting heat transfer from a first fluid medium to a second fluid medium and for enhancing mixing and uniform distribution of the second fluid medium within the confines of a conduit. The device includes providing a core pipe for receiving the first fluid medium and a series of helically wound tubes in fluid communication with the core pipe along the longitudinal axis of the conduit. The second fluid passes within the conduit and is mixed by virtue of the static mixing effect of the helically wound tubes and engages in heat transfer as a result of the intimate contact between the second fluid, the core pipe and the helically wound tubes.